

WHAT IS CLAIMED IS:

SUB A17

1. A computer-implemented method, comprising:  
providing at least two selected directories for storing  
files; and

5 automatically balancing files among each of the selected  
directories.

10 2. The computer-implemented method of claim 1 further  
comprising, receiving information corresponding to a new file  
to store.

15 3. The computer-implemented method of claim 1, wherein  
providing at least two selected directories for storing files  
includes automatically creating at least one directory.

20 4. The computer-implemented method of claim 1, wherein  
automatically balancing files among each of the selected  
directories includes determining which of the directories has  
a least number of files therein.

5. The computer-implemented method of claim 1, wherein  
automatically balancing files among each of the selected  
directories includes determining when a selected directory has  
a number of files stored therein that exceeds a limit.

6. The computer-implemented method of claim 5, further comprising, receiving information corresponding to a new file to store, determining that each selected directory has a number of files therein that exceeds a limit, and automatically creating at least one new selected directory.

7. The computer-implemented method of claim 1 further comprising, for each file, tracking which selected directory that file is stored in.

8. The computer-implemented method of claim 1 further comprising, maintaining a count of a number of files stored in each selected directory.

9. The computer-implemented method of claim 1 wherein at least one of the selected directories caches content downloaded from a server.

10. The computer-implemented method of claim 1 wherein at least one of the selected directories is randomly named.

11. The computer-implemented method of claim 1 wherein each of the selected directories is randomly named, and wherein each of the selected directories caches content downloaded from a server.

5

12. The computer-implemented method of claim 11 further comprising, maintaining a table including server content references and filenames converted therefrom.

13. The computer-implemented method of claim 1, wherein automatically balancing files among each of the selected directories includes determining a selected directory having a lowest file count, and moving files from another selected directory to the selected directory having the lowest file count.

14. The computer-implemented method of claim 1, further comprising, maintaining an index including a directory name for each selected directory, and for each directory name, maintaining a file count of a number of files stored therein.



when the file count maintained therefor is below a threshold value.

19. The computer-implemented method of claim 18, further comprising removing a selected directory based on the file count maintained therefor.

20. In a computing device having a file system, a system, comprising:

10 a balancing mechanism configured to automatically create a selected directory in the file system for storing files, and further configured to distribute files from at least one other directory in the file system to the selected directory; and

15 a data structure, the data structure maintained by the balancing mechanism to track information on the files in the selected directory.

21. The system of claim 20 wherein the at least one other directory comprises a directory created by the balancing mechanism.

22. The system of claim 20 wherein the balancing mechanism receives information corresponding to a new file to store.

23. The system of claim 20, wherein the balancing mechanism distributes the files based on a number of files in the at least one other directory.

5

24. The system of claim 20, wherein the balancing mechanism creates an additional directory for distributing files thereto.

10

25. The system of claim 24, wherein the balancing mechanism receives information corresponding to a files to store, and distributes those files based on a file count of the selected directory and the additional directory.

15

26. The system of claim 24 further comprising, a table having information therein indicating which directory each file is stored in.

20

27. The system of claim 24, wherein the balancing mechanism is configured to create the additional directory upon a determination that the selected directory has a number of files stored therein that exceeds a limit.

28. The system of claim 20 wherein the data structure includes a count of a number of files stored in each selected directory.

5           29. The system of claim 20 wherein the selected  
directory caches content downloaded from a server.

30. The system of claim 20 wherein the selected directory is randomly named.

31. The system of claim 20 wherein the selected directory is randomly named, and wherein the selected directory caches content downloaded from a server.

15            32. The system of claim 20 wherein the data structure includes a directory name for the selected directory and a file count of a number of files stored in the selected directory.

20            33. The system of claim 20 wherein the balancing  
mechanism is further configured to move at least one file from  
one selected directory to another selected directory in  
response to deletion of at least one other file.

34. The system of claim 20 wherein the data structure tracks a file count of a number of files stored in each selected directory, and wherein the balancing mechanism is further configured to move at least one file out of a selected  
5 directory when the file count maintained therefor is below a threshold value.

35. The system of claim 34, wherein the balancing mechanism removes a selected directory based on the file count  
10 maintained therefor.

36. A computer-readable medium having stored thereon a data structure, comprising:

a first field identifying one of a plurality of  
15 directories; and

a second data field including data corresponding to a number of files stored in the directory identified in the first data field, the second data field updated as files are moved among the plurality of directories.

20